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TITLE : CAPILLARY FOR WIRE BONDING

ABSTRACT : PROBLEM TO BE SOLVED: To obtain a capillary which is suitable for narrow pitch bonding, whose life hardly lowers even if a clearance is reduced by forming a lubricant layer in an inner surface of a path wherein a wire passes.

SOLUTION: In is necessary for a lubricant layer to resist about 150 to 300°C which is a temperature of a capillary at the time of wire bonding, not to cause contamination even if it attached to a gold line and to have small velocity of abrasion due to friction with a gold line; as a material of lubricant which satisfies these conditions, Teflon, for example, can be mentioned. As a formed lubricant layer is thicker, a life of a capillary gets longer and a thickness of about 0.1 to 1 μm is suitable. Formation of a lubricant layer in an inner surface of a path in which a wire passes eliminates the need for applying lubricant to a wire surface and reduces a clearance without lowering junction property.

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